

### **How to Submit a 2016 ERCAP Request**

### Clayton Bagwell NERSC Account & Allocation Support

August 21, 2015







### **ERCAP**

# "Energy Research Computing Allocations Process"







### **ERCAP Application Deadlines**

http://www.nersc.gov/users/accounts/allocations/deadlines









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### **ALLOCATION PROPOSAL (ERCAP) APPLICATION DEADLINES**

Award Type	ERCAP Submission Open	ERCAP Submission Deadline	Award Decision	Allocation Period
Startup and Education	Ongoing	Ongoing	Within 3 weeks of applying	18 months from award (but must be renewed for the next allocation year)
Production (DOE awarded) for the rest of allocation year 2015	Ongoing	Ongoing	Within 4 weeks of applying (pending sufficient DOE reserves of time)	through January 11, 2016
All continuing projects must be renewed for 2016. New projects may apply after the deadline.	August 4, 2015	September 21, 2015	December 11, 2015	January 12, 2016 - January 9, 2017







## Who can apply? Anyone who's work supports the DOE Office of Science Missions

https://www.nersc.gov/users/accounts/allocations/overview/









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NIM (NERSC Information Management portal)

Awarded projects

- » Computational Systems
- » Storage & File Systems
- » Data & Analytics
- » Connecting to NERSC
- » Queues and Scheduling
- » Job Logs & Statistics
- » Training & Tutorials
- » Software

. Dellelee

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### **ALLOCATIONS OVERVIEW AND ELIGIBILITY**

### **Allocations Overview**

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Most allocations of NERSC computer time and archival storage are awarded by DOE and managed by NERSC. There is no monetary charge to the project that receives the award. The awarded research groups are given project accounts, known as repositories (or repos), with a given amount of computing hours and an archival storage allocation. Resource usage (computer time or archival storage) is charged against the repository, like a withdrawal from a bank account. Once the account is exhausted, users can no longer charge against that account.

NERSC supports several allocation programs:

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- 7. Fusion Energy Sciences (FES)
  Mission
- 8. High Energy Physics (HEP) Mission
- 9. Nuclear Physics (NP) Mission
- 10. Small Business Innovation Research (SBIR) Mission

Allocation Type	% of DOE Allocation	Description
DOE Production	80%	Awards are made by DOE program managers in the six offices of science and SBIR. Applicants need to be part of a research project funded by the DOE Office of Science or show that their work meets the DOE mission.
ALCC	10%	ASCR Leadership Computing Challenge: a DOE program run by ASCR to promote areas of interest to DOE. See the <u>ALCC web page</u> .
NERSC Director's Reserve	10%	This is for projects selected by the NERSC Director.
Education, Startup	N/A	Small awards made by NERSC from NERSC overhead time.

R&D EVENTS LIVE STATUS







## Applying for your first allocation:

http://www.nersc.gov/users/accounts/ allocations/first-allocation

https://nim.nersc.gov/newpi.php









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Managing Your Allocation

**DOE Allocation Managers** 

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### APPLY FOR YOUR FIRST NERSC ALLOCATION

### Initial Steps Needed to Apply for Your First NERSC Allocation

All work done at NERSC must be within the DOE Office of Science mission. See the Mission descriptins for each office at Allocations Overview and Eligibility.

Prospective Principal Investigators without a NERSC login need to fill out two forms:

- The online <u>ERCAP Access Request Form</u>. If you wish to designate another person to fill out the request form you may designate a "PI Proxy" on this form.
- Complete and submit the online <u>Computer User Agreement form</u>.

Once we receive your agreement form and activate your account, you will receive an email with a link that will allow you to set your initial password. That link will expire if not used within 72 hours. If the link has expired, you will need to call NERSC Account Support at 1-800-666-3772 menu 2, or 510-486-8612, to obtain a temporary password. You can call at any time, 24 x 7, and somebody will be here to assist you.

### Startup Allocations

Many new NERSC projects begin with a Startup allocation, particularly if they are new to HPC or are not yet ready to run production codes on thousands of CPU cores. Startup awards are limited to 50,000 MPP hours (Cray XT4 equivalent hours) and are good for up to 18 months.







### https://nim.nersc.gov/newpi.php

### **ERCAP Access Request Form for new Pls and Pl Proxies**

If you are completely new to NERSC and wish to make an allocation request as a new Principal Investigator (PI), please select and complete the appropriate boxes below. If you already have a NERSC user name and wish to become a PI, please log into NIM, click on "ERCAP requests" in the NIM Main Menu, and follow the subsequent instructions.

You also have the option of nominating a PI Proxy. A PI Proxy can fill out a request on behalf of a PI. In order to add a Proxy, please fill out the optional Proxy information section below.

When you are done, please click on Submit Request at the bottom of the page.

You must also fill out and submit the NERSC Computer User Agreement Form.

After the Account Support Office has received both this form and the Computer User Agreement Form they will contact you about your NIM login name and password.

Pl's First Name:	
Middle Initial:	
Pl's Last Name:	
PI's NERSC Username:	(If user does not have a NERSC usemame, enter a preferred usemame.)
Pl's Citizenship:	Not Specified 💠
Pl's Email Address:	
Pl's Telephone:	
Pl's Organization:	UNKNOWN: Not Yet Set   (if your site is not listed, click here to add it)
Pl's Mail Stop (optional):	
Optional: nominate a Proxy fo	thic DI
	uns FI
PI Proxy's First Name:	
Middle Initial:	
Proxy's Last Name:	
Proxy's NERSC Username:	(If user does not have a NERSC usemame, enter a preferred usemame.)
Proxy's Citizenship:	Not Specified    The specified the specified
Proxy's Email Address:	
Proxy's Telephone:	
Proxy's Organization:	UNKNOWN: Unknown (if your site is not listed, click here to add it)
Proxy's Mail Stop (optional):	







### https://nim.nersc.gov/CUA.php

### **NERSC Electronic Computer User Agreement form**

The following is a list of general computer use policies and security rules that apply to individual users of NERSC. Further information on NERSC security policies and practices can be found on the NERSC Computer Security page. Principal Investigators are responsible for implementing these policies and procedures in their organization and ensuring that users fulfill their responsibilities.

### **User Accountability**

Users are accountable for their actions. Violations of policy may result in applicable administrative or legal sanctions.

### Resource Use

Resources provided by NERSC are to be used only for activities authorized by the Department of Energy (DOE) or the NERSC Director. The use of NERSC resources for personal or private benefit is prohibited. NERSC resources are provided to users without any warranty. NERSC will not be held liable in the event of any system failure or loss of data. NERSC resources cannot be used for any military or defense end use or application, or to facilitate any transaction that would otherwise violate U.S. export control regulations.

### Passwords and Usernames

A user identifier known as a username and password are required of all users. Passwords must be changed at NERSC's request. All passwords must conform to NERSC guidelines, which are found in Getting Help/passwords. Passwords must not be shared with any other person and must be changed as soon as possible after an unacceptable exposure, suspected compromise or by direction of a NERSC staff member.

### Notification

Users must notify NERSC immediately when they become aware that any of the accounts used to access NERSC have been compromised. Users should promptly inform NERSC of any changes in their contact information.

### Software and Data

Your Initials:	Attestation I have read this NERSC Computer User Agreement and understand and accept my responsibilities in the use of NERSC resources.
	I attest that I am not a citizen of Cuba, Iran, Syria or Sudan who will be using NERSC resources while residing and/or working in one of these countries.
Your Initials:	
	Can't read it? Refresh the image
	Please enter the characters you see in the image above (not case sensitive).
	Submit Request







### **ERCAP Access Request Form for new Pls and Pl Proxies**

If you are completely new to NERSC and wish to make an allocation request as a new Principal Investigator (PI), please select and complete the appropriate boxes below. If you already have a NERSC user name and wish to become a PI, please log into NIM, click on "ERCAP requests" in the NIM Main Menu, and follow the subsequent instructions.

You also have the option of nominating a PI Proxy. A PI Proxy can fill out a request on behalf of a PI. In order to add a Proxy, please fill out the optional Proxy information section below.

When you are done, please click on Submit Request at the bottom of the page.

You must also fill out and submit the NERSC Computer User Agreement Form.

After the Account Support Office has received both this form and the Computer User Agreement Form they will contact you about your NIM login name and password.

PI's First Name:	
Middle Initial:	
Pl's Last Name:	
Pl's NERSC Username:	(If user does not have a NERSC usemame, enter a preferred usemame.)
Pl's Citizenship:	Not Specified 💠
Pl's Email Address:	
Pl's Telephone:	
Pl's Organization:	UNKNOWN: Not Yet Set   (if your site is not listed, click here to add it)
PI's Mail Stop (optional):	
Outland, naminate a Braunta	attic Di
Optional: nominate a Proxy fo	raise
PI Proxy's First Name:	
Middle Initial:	
Proxy's Last Name:	
Proxy's NERSC Username:	(If user does not have a NERSC usemame, enter a preferred usemame.)
Proxy's Citizenship:	Not Specified    The specified
Proxy's Email Address:	
Proxy's Telephone:	
Proxy's Organization:	UNKNOWN: Unknown   (if your site is not listed, click here to add it)
Proxy's Mail Stop (optional):	











### **NERSC Information Management**

### Please sign in

NERSC Username:

NIM Password:

Reset your NIM password. | Forgot your username? | Sign in as Staff

Log In

New to NERSC? Get valuable information about using NIM here: NIM User's Manual.

Reset your NIM password using the link above. If you have problems resetting your password, contact Account Support at the number below.

For Account problems/questions, contact:

NERSC Account Support: 1-800-66-NERSC (menu option #2) or 510-486-8612.

For Program problems/questions, contact:

NERSC Consultants: 1-800-66-NERSC (menu option #3) or 510-486-8611,

consult@nersc.gov









ERCAP requests Refresh list







### ERCAP requests Refresh list

Request Title		Click to renew for 2016	Click to edit	Click to download
Test project/repositories	2016		Edit	Download PDF
CRD Advanced Computing for Science Department Guest Accounts	2015	Renew	Edit	Download PDF
NERSC High Performance Computing Department Training Accounts	2015	Renew	Edit	Download PDF
NERSC Operations Staff Accounts	2015	Renew	Edit	Download PDF
NERSC Cray Staff Accounts	2015	Renew	Edit	Download PDF
NERSC Staff Accounts	2015	Renew	Edit	Download PDF
NERSC Center Vendor Accounts	2015	Renew	Edit	Download PDF
NERSC Center Guest Accounts	2015	Renew	Edit	Download PDF
NERSC overhead account for users with no active repo	2015	Renew	Edit	Download PDF







NERSC overhead account for users with no active repo

2014

Edit

Download PDF

### Start a Request for a new Project

If you wish to continue a project to the next year allocation year (2016), click on the "Renew" link next to the project's title above.

Many informational fields will be carried forward into your 2016 request, so you will not have to retype them.

Use the 'Start a Request for a new Project' link for NEW projects only.

Starting a new request will require a new user list (i.e. add existing users to the new project/repository, etc.) and filling in ALL the information fields.







### What type of request would you like to start?

A new request for the remainder of 2015

o (ends Jan 13, 2016)

A new request for 2016

(starts Jan 14, 2016)

Start new ERCAP request







Overview Q1-9 PI: ERCAP 2016 Request: Last updated: (Not Yet Finished) Download PDF Save Project Overview Q1-9 You MUST click the "Save" button here or at the bottom in order to save your work before selecting another tab. 1. Principal Investigator Name Phone **Email** Pi, Test 510-486-8612 support-notice@lbl.gov 2. Other Authorized Preparers - Preparer will be designated a PI PROXY Note: Link to add an additional preparer will not display until after the initial project information is saved. Test Senior Investigator 1 3. Senior Investigators Test Senior Investigator 2 Test Project 4. Project Title www.nersc.gov 4.1 URL for a relevant web page describing your project Enter ONLY ONE URL per line using the format: http://www.nersc.gov (4000 characters maximum) (NOTE: You can add your image after saving your ercap request) 4.2 Image representing your project (When you upload a new image, it will not be visible here until you refresh the page. For renewed projects that previously had uploaded an image, this image will display after the project overview is saved.)







5. Project Name	TestPrject
Project Class     Select Startup or DOE Base Funding unless you know that your project falls under another specific class	DOE Base Funding 🗘
7. Sponsoring Site - If this field is blank, start typing in the name of your site and select the appropriate site from the list. If your organization does not show up on the list, click the link below to submit the information for your organization  If your site is not listed, click here to add new organization.	USA: Lawrence Berkeley National Lab - NERSC
8. Science Category	Computer Science
9. DOE Office and Program	ASCR - Computer Sciences
	Save Project Overview Q1-9







You have started a new ERCAP request. Please click any tab to continue.

Project	DOE	Project	Resources	PDSF	Code Description(s)	Data &	Other Info	Submit	Show
Overview	Funding	Description	Requested	Q19	Q20	Analytics	Q23-25	Request	Complete
Q1-9	Q10-11	Q12-14	Q15-18			Q21-22			Request

ERCAP 2016 Request: 89039 PI: Test Pi Last updated: 21-AUG-2015 (Not Yet Finished)

Download PD

### **Test Project**

The Project Overview Q1-9 form has been saved successfully.







Project Overview Q1-9

DOE **Funding** Q10-11

Project Description Q12-14

Resources Requested Q15-18

**PDSF** Q19

Code Description(s) Data & Q20

Analytics Q21-22

Other Info Q23-25

Submit Request Show Complete Request

**ERCAP 2016 Request: 89039** PI: Test Pi Last updated: 21-AUG-2015 (Not Yet

A Down

### **Test Project**

Save Project Overview Q1-9 You MUST click the "Save" button here or at the bottom in order to save your work before selecting another tab.

1. Principal Investigator

Name **Phone**  **Email** 

Pi, Test 510-486-8612 support-notice@lbl.gov

2. Other Authorized Preparers - Preparer will be designated a PI PROXY Add a preparer (PI Proxy)

Name

**Phone** 

**Email** 

PIPROXY, Test 510-486-8612 support-notice@nersc.gov

3. Senior Investigators

Test Senior Investigator 1 Test Senior Investigator 2

4. Project Title

Test Project

4.1 URL for a relevant web page describing your project

Enter ONLY ONE URL per line using the format: http://www.nersc.gov

www.nersc.gov

(4000 characters maximum)

4.2 Image representing your project

Select to upload a project image file

(When you upload a new image, it will not be visible here until you refresh the page.

For renewed projects that previously had uploaded an image, this image will display after the project overview is saved.)







### How project images are used:

http://www.nersc.gov/live-status/now-computing/







### Center Overview



Edison Cray XC30 Peak TFlop/s: 2,570 Jobs running: 435 Jobs queued: 1,804 Cores in use: 112,392 (84%) Backlog: 1.3 days



Hopper Cray XE6 Peak TFlop/s: 1,288 Jobs running: 583 Jobs queued: 3,942 Cores in use: 152,736 (100%) Backlog: 7.0 days



Carver IBM iDataPlex Peak TFlop/s: 34 Jobs running: 412 Jobs queued: 1,729 Cores in use: 3,750 (49%)

Backlog: 5.5 days



Storage Usage

Project: 4,630TB GScratch: 2,128TB DNA: 796TB ProjectB: 1,352TB Ed. Scratch 1: 1,113TB Ed. Scratch 2: 1,108TB

### Top Jobs



Quantum Chromodynamics with four flavors of dynamical quarks

Office: High Energy Physics
Investigator: Doug Toussaint
Science Area: Lattice QCD
Cores: 12.288 (Hopper)

**Core Hours Used:** 4,107,613.3



Hydrodynamics and Nucleosynthesis of Supernovae and Compact Object Mergers

Office: Nuclear Physics

Investigator: Rodrigo Fernandez
Science Area: Astrophysics

Cores: 6,912 (Hopper)

Core Hours Used: 2,306,241.3

SciDAC GSEP: Gyrokinetic

### Current CPU-Core Usage Breakdown

Cores in Use by Office:

**Basic Energy Sciences** 

110,928

**High Energy Physics** 

63,872

**Fusion Energy Sciences** 

**Cores in Use by Project Type:** 

DOE Base

199,112

SciDAC

60,664

Director Reserve project

Cores in Use by Science Category:

Materials Science

74,272

Fusion Energy

44,168

Simulation of Energetic Particle
Turbulence and Transport
Office: Fusion Energy Sciences
Investigator: Zhihong Lin
Science Area: Fusion Energy
Cores: 6,144 (Edison)

Cores: 6,144 (Edison)
Core Hours Used: 39,981







Browse... NERSC\_New\_logo.jpg

close

(NOTE: jpg, gif, and png images are supported)

Upload

Your image will not be viewable until vetted

Upload complete







### 4.1 URL for a relevant web page describing your project

Enter ONLY ONE URL per line using the format: http://www.nersc.gov

### 4.2 Image representing your project

(When you upload a new image, it will not be visible here until you refresh the page.

For renewed projects that previously had uploaded an image, this image will display after the project overview is saved.)

www.nersc.gov

(4000 characters maximum)

This is the size your image will display on the web. Click on the image to view the full size you uploaded.



Change Image

Remove Image

5. Project Name

TestPrject







Project DOE Project Resources **PDSF** Code Description(s) Data & Other Info Submit Show Overview Q20 Q23-25 Funding Description Requested Q19 Analytics Request Complete Q1-9 Q10-11 Q12-14 Q15-18 Q21-22 Request

**ERCAP 2016 Request: 89039** Last updated: 21-AUG-2015 (Not PI: Test Pi



### **Test Project**

Save DOE Funding Q10-11 You MUST click the "Save" button here or at the bottom in order to save your work before selecting another tab. 10. Is this project funded by the DOE Office of Science? Yes, this project has direct grant support from the DOE Office of Science • Who is your DOE Program Manager? • DOE Office of Science Grant Number(s) (List all that apply) (4000 character maximum) 0 characters entered. : 4000 characters remaining. • If you also intend to use NERSC resources to support research that is not funded by the DOE Office of Science, list the funding agencies and grant numbers. (4000 character maximum) 0 characters entered. : 4000 characters remaining.







(4000 character maximum)

48 characters entered. : 3952 characters remaining.

Project Description and count of character used.

### 12.2 Long Project Description

Longer project descriptions may be attached as a PDF file.

Select to upload PDF attachment (Maximum size: 20 MB)







No (If "No", complete only the following section of this question.) This project is funded by: (complete boxes for all that apply)	
DOE, other than Office of Science (enter grant number(s) and source of support)	
	(4000 character maximum)
	0 characters entered. : 4000 characters remaining.
Work for others at DOE laboratory (enter grant number and sponsor)	
	(4000 character maximum)
	0 characters entered. : 4000 characters remaining.
Other funding agencies (enter grant number(s) and name of agency)	
	(4000 character maximum)
	0 characters entered. : 4000 characters remaining.
Other Funding (e.g. University department)	
	(4000 character maximum)
	0 characters entered. : 4000 characters remaining.
Describe the project's relevance to the DOE Office of Science mission.	
Describe the project's relevance to one of the six Office of Science program offices and explain how your project's research supports that mission.  Projects that can demonstrate alignment with a program office mission are much more likely to receive awards.	
	(4000 character maximum)
	0 characters entered. : 4000 characters remaining.







11.	1 Does this project intend to make use of any information (software or data) subject to the following legal controls on use?
	Classified or controlled military or defense information
	Export controlled or ITAR (International Traffic in Arms Regulations) information
	Personally identifiable information
	Protected health information
	Proprietary information
	None
11.	2 If this proiect is given a NERSC award. I agree to monitor the usage associated with it to ensure that, to the best of my ability to
11.	1 Does this project intend to make use of any information (software or data) subject to the following legal controls on use?
	Classified or controlled military or defense information
	Export controlled or ITAR (International Traffic in Arms Regulations) information
	Personally identifiable information
	Protected health information
V	Proprietary information
	None
	Please explain:
	(4000 character maximum)
	0 characters entered. : 4000 characters remaining.







11.2 If this project is given a NERSC award, I agree to monitor the us determine, usage is for the project described here.	sage associated with it to ensure that, to the best of my ability to	
Yes	O No	
11.3 For continuing projects: I have audited the MPP and/or HPSS u determine, all usage was for the project specified.	sage associated with this project, and to the best of my ability to	
Yes	No	N/A - New Project
	Save DOE Funding Q10-11	







Project DOE **PDSF** Code Description(s) Data & Submit Show Project Resources Other Info Complete Q19 Overview Funding Description Requested Q20 Analytics Q23-25 Request Q12-14 Q21-22 Q1-9 Q10-11 Q15-18 Request

 ERCAP 2016 Request: 89039
 PI: Test Pi
 Last updated: 21-AUG-2015 (Not Year)



### **Test Project**

Save Project Description Q12-14 You MUST click the "Save" button here or at the bottom in order to save your work before selecting another tab. 12. Project Description Describe the research you are performing or will perform with NERSC resources. 12.1 Project Summary: provide a brief summary easily understood by people outside of your field (i.e., at a Scientific American level of sophistication --- Required). What will this project accomplish? What is the significance of this work? (4000 character maximum) 0 characters entered. : 4000 characters remaining. 12.2 Long Project Description Longer project descriptions may be attached as a PDF file. Select to upload PDF attachment (Maximum size: 20 MB)







13.1 Accomplishn	nents Summary
------------------	---------------

Summarize in terms easily understood by people outside of your field the accomplishments made by this project using NERSC resources in the previous year. Explain why your results are important and how the use of NERSC resources allowed you to meet your research objectives. (Startup requests need not fill in this field.)

(4000 character maximum)	0 characters entered. : 4000 characters remaining.		

### 13.2 Long Accomplishments Description

Longer accomplishments description may be attached as a PDF file.

Select to upload PDF attachment (Maximum size: 20 MB)







14. Publications Resulting From the Use of NER	SC Resources - Enter in the order authors, title, journa	ıl
14.1 Refereed Publications Enter only publications that have been accepted an	nd are in press or published. Do not include publications entered	here last year.
(4000 character maximum)	0 characters entered. : 4000 characters remaining.	
14.2 Other publications to support this request.		
Use this area for submitted as well as other types of		
(4000 character maximum)	0 characters entered. : 4000 characters remaining.	







Project	DOE	Project	Resources	PDSF	Code Description(s)	Data &	Validate	Other Info	Submit	Show
Overview	Funding	Description	Requested	Q19	Q20	Analytics	Current	Q23-25	Request	Complete
Q1-9	Q10-11	Q12-14	Q15-18			Q21-22	User List			Request

 ERCAP 2016 Request: 89172
 PI: Test PI
 Last updated: 28-AUG-2015 (No. 2015)

### Test Project

Cava Dagauraga Daguagtad O15 19 Vou	MUST click the "Save" butter	hara or at the hatte	um in order to sove your work he	ofere colocting another toh		
Save Resources Requested Q15-18 You	MUST CIICK THE Save DUTTOR	nere or at the botto	im in order to save your work be	elore selecting another tab.		
15. Computational Resources						
Resource	Alloc Type		Repo	Hours Used 2015	Hours Re	quested 2016
15.1 MPP Systems:Edison & Cori	Startup	<b>○</b>	m2247	0		50,000
15.4 Genepool (Joint Genome Institute researchers only)  Are you pre-authorized to use Genepool? Yes No						
15.7 Project Directories						
			Project			
			<b>Directory Name</b>	Storage Used 2015	Storage Re	quested 2016
			m2247	0		1.0 TiB
Resource	Alloc Type		Repo	SRUs Used 2015	SRUs Re	quested 2016
15.8 Archival Storage	Startup	<b>\$</b>	m2247	0		1,000
					Show S	RU Calculator
How much HPSS archival storage do	you need?				10	Terabytes
15.9 Scratch Space						
How much scratch space will your pro	oject need?			2	20	Terabytes









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### **HPSS CHARGING**

FOR USERS

SYSTEMS

NERSC uses Storage Resource Units (SRUs) to help manage HPSS storage. The goal is to provide a balanced computing environment with appropriate amounts of storage and adequate bandwidth to keep the compute engines fed with data. Performance and usage tracking allows NERSC to anticipate demand and maintain a responsive storage environment. Storage management also recognizes storage as a distinct resource in support of an increasing amount of data intensive computing. Storage management and the quota system are intended to encourage efficient usage by the user community.

### **SRU Management**

SRUs are reported and managed through the NERSC Information Management (NIM) system. If a user is out of SRUs in all of their HPSS repositories that user will be restricted so that they can no longer write data to HPSS (although they will continue to be able to read data).

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- 2. Calculating a User's SRUs
- 3. Apportioning User SRUs to Repositories: Project Percents
- 4. User Quotas or Allowed Percents
- 5. User Statuses for HPSS
- 6. What happens if a repo or user SRU balance is negative?
- 7. SRU Usage Reports

Users can check their HPSS SRU balances by logging in to the NIM and clicking on their "Account Usage" tab.

EVENTS

R & D

LIVE STATUS

Back to Top

### Calculating a User's SRUs

Three measures of use are used in computing SRUs:

- Number of files stored (files)
- 2. GB of space used in the archive (space)
- 3. GB of I/O transferred (I/O).







		Hide	SRU Calculator
How much HPSS archival storage do you need?		10	Terabytes
15.9 Scratch Space			
How much scratch space will your project need?		20	Terabytes
Annual estimates: Number of Files: 0	GB of space used in the archive (space): 0	GB of I/O transferred (I/O): 0	

### **SRU CALCULATOR**

### About SRUs

You can use this form to estimate your mass storage charges (in SRUs).

SRUs are calculated on a daily basis. Enter your estimated daily average number of files and data storage and your yearly estimate of data transferred to and from the HPSS system. Click on *Calculate* and your SRU charge will appear in the light blue boxes.

Enter average daily va	lues for the allocation year		
Number of files*:	10,000		
Amount of data stored*:	85		GB
Enter total HPSS I/O f	or the allocation year		
Data transferred:	170		GB
	Calculate Reset		
This is your estimated	d SRU charge		
Average per month:		102.54	
	SRUs		
Per Year:		1,231	SRUs







Resource	Alloc Type	Repo	SRUs Used 2015	SRUs Requested 2016
15.8 Archival Storage	Startup	m2247	0	
				Show SRU Calculator
How much HPSS archival stora	ge do you need?			Terabytes
15.9 Scratch Space				
How much scratch space will ye	our project need?			Terabytes







6.	<b>Brief Justification for Resources Requeste</b>	d Above
	(4000 character maximum)	0 characters entered. : 4000 characters remaining.
	(1888 Sharaster maximum)	- Contraction of the four of the first of th
	Events or Deadlines Affecting Computation	
		nal Needs Through the Year year that you expect will spike your demand for resources
	Please describe any time(s) this coming allocation	year that you expect will spike your demand for resources
	Please describe any time(s) this coming allocation	year that you expect will spike your demand for resources
	Please describe any time(s) this coming allocation	year that you expect will spike your demand for resources
	Please describe any time(s) this coming allocation	year that you expect will spike your demand for resources
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	Please describe any time(s) this coming allocation	year that you expect will spike your demand for resources
	Please describe any time(s) this coming allocation	year that you expect will spike your demand for resources







18. Real-Time Computing Needs Does your project require real-time computing resources? (For example does your project require immediate access to computing resources because it is connected to a Yes No	live experiment.)
Save Resources Requested Q15-18	
<ul> <li>18. Real-Time Computing Needs Does your project require real-time computing resources? (For example does your project require immediate access to computing resources because it is connected to a yes No <ul> <li>If you answer Yes above, please explain:</li> </ul> </li> </ul>	ı live experiment.)
(4000 character maximum) 0 characters entered. : 4000 characters remaining.	







Project DOE PDSF Submit Show Project Resources Code Description(s) Data & Other Info Q19 Overview Funding Description Requested Analytics Q23-25 Complete Request Q1-9 Q10-11 Q12-14 Q15-18 Q21-22 Request **ERCAP 2016 Request: 89039** PI: Test Pi Last updated: 21-AUG-2015 (Not ' This page is for PDSF users only. You should skip this section unless you have prior approval for a PDSF project. The PDSF is a special-use physics system hosted by NERSC. **Test Project** 

or

Code Description(s) Data & Other Info

Submit

Overview Q1-9	Funding Q10-11	Description Q12-14	Requested Q15-18	Q19	Q20	Analytics Q21-22	Q23-25	Request	Complete Request	
ERCAP 201	16 Request:				PI:				Last	updated: (Not Ye
This page is f	for PDSF users o	nly. You should skip	this section unles	s you have p	rior approval for a PDS	SF project. The PDS	F is a special-us	e physics system	hosted by NERSC.	
Are you aut	horized to use	the PDSF syster	m? ● Yes ○ N	lo						
19.1 PDSF	Repos									
No PDSF rep	No PDSF repos for 2016									
Save PDSF information You MUST click the "Save" button here or at the bottom in order to save your work before selecting another tab.										
Do you nee		(project account)								
Yes O	No   If yes,	please enter your e	xperiment name (3	3-8 characters	s):					
Save PDSF in	nformation									



Are you authorized to use the PDSF system? Yes • No

Project

Resources





DOE Validate Other Info Project Project Resources Code Description(s) Data & Submit Show Q19 Overview Funding Description Requested Q20 Analytics Current Q23-25 Request Complete Q1-9 Q10-11 Q12-14 Q15-18 Q21-22 User List Request ERCAP 2016 Request: 89045 PI: Test PI Last updated: 25-AUG-2015 (Not Yet This page is for PDSF users only. You should skip this section unless you have prior approval for a PDSF project. The PDSF is a special-use physics system hosted by NERSC. Test project/repositories Are you authorized to use the PDSF system? Yes No 19.1 PDSF Repos Select the repositories you want to renew for 2016, then click the arrow below to renew them. **Existing PDSF repos PDSF Repo** Renew? No PDSF repos for 2016 testpdsf Please renew your request before filling out the rest of the fields on the page. Save PDSF information You MUST click the "Save" button here or at the bottom in order to save your work before selecting another tab. Do you need a new repo (project account) ? PDSF projects must be approved. If yes, please enter your experiment name (3-8 characters): Yes No 💿



Save PDSF information





19.2 PDSF uses a "sponsored" model. How does your project plan to fund your PDSF usage (compute and storage)?					
	(4000 character maximum)	0 characters entered. : 4000 characters remaining.	_		
19.	3 How many total CPU hours do you need for th	he coming year (please describe your codes on the cod	les tab)?		
	Hours (Integer value only)				
19.4	Hours (Integer value only)  4 Describe any special characteristics of your value only)	vorkflow (e.g. non-conforming)			
19.4	4 Describe any special characteristics of your v	workflow (e.g. non-conforming)  O characters entered.: 4000 characters remaining.			
19.4	4 Describe any special characteristics of your v				
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	4 Describe any special characteristics of your v	0 characters entered. : 4000 characters remaining.			







DOE PDSF Project Project Resources Code Description(s) Data & Validate Other Info Submit Show Overview Funding Description Requested Q19 Analytics Current Q23-25 Request Complete Q1-9 Q10-11 Q12-14 Q15-18 Q21-22 User List Request **ERCAP 2016 Request: 89045** PI: Test PI Last updated: 25-AUG-2015 (N Test project/repositories WhereUFrom WhoBU 😱 Add another code Save Code Description Q20 You MUST click the "Save" button here or at the bottom in order to save your work before selecting another tab. 20. Code and Application Descriptions You should complete a copy of this page for each of your project's most frequently used codes and applications. Each code will appear on a separate tab (under the main set of tabs.) Click on the "Add another code" tab to pull up a blank copy of this page for each new code. **Code Name** WhoBU **Code Description** 15 characters entered. : 1985 characters remaining. Determines user What does the code do? (2000 characters max) **URL** for code description www.personID.org Machines to be used Edison Where do you plan to run this code? Cori Phase 1 ✓ Genepool (Joint Genome Institute researchers only) PDSF (PDSF member projects only)







Percent of allocation  What percent of the project's overall allocation do you expect this code to use?	50 %			
What is the maximum number of nodes the code can use?	256			
What is the typical number of nodes used by this code in production runs?	8			
If you run serial jobs, how many simultaneous jobs would you like to run? For PDSF users: how many simultaneous jobs do you plan to run?	number of serial jobs			
How do you perform I/O?	✓ Files shared between processors   One file per processor or node			
Programming Languages Used	✓ Assembler ✓ C language ✓ C++ ✓ Fortran77  ✓ Fortran90 ✓ Fortran95 ✓ Fortran 2003+ ✓ Java ✓ Python			
	Other: ShellScript,Other Programmir			
Parallel Programming Models Used	✓ MPI			
	□ Posix Threads			
	Other:			







Project Overview Q1-9	DOE Funding Q10-11	Project Description Q12-14	Resources Requested Q15-18	PDSF Q19	Code Desc Q20	ription(s) Data & Analytics Q21-22	Validate Current User List	Other I			Show Complete Request
ERCAP 20	<b>16 Request:</b> 8904	45		PI: Te	est PI				Last up	dated: 25-A	\UG-2015 (
Test proj	ect/repositor	ries									
Save Data &	Analytics Q21-22	You MUST click t	he "Save" button he	ere or at the bottor	m in order to s	save your work bef	fore selecting an	other tab.			
21. Data & A	Analytics										
		aries, databases, v ur work require at		d Firewo	orks	Globus Online	☐ GridFTP ☐	HDF5			
				✓ Mongo		✓ MySQL		PostgreSQL			
				Raw B	Sinary ASCII, CSV)	ROOT	✓ SciDB	Swift			
					•	Lab,Hadoop,Omero	,Other NoSQL,Ot				
		data analytics fran ur work require at	•	<b>☑</b> Fiji <b>☑</b> Pythor	<ul><li>✓ MATI</li><li>1</li><li>✓ R La</li></ul>			N			
				-	DAT Visit	✓ VMD	. O opani				
				Other: ADI	IOS,Catalyst (F	araview),CDAT,Clim	nate Data Operato				







22. [	Data Sharing			
	1 Do you need to share data or access NERSC compute resources over the web? r special resources you may need, such as software, data storage, and/or bandwid			
				(4000 character maximum)
				0 characters entered. : 4000 characters remaining.
	How much data do you expect your project to move to NERSC from external sources?	0	Terabyte	es







Project	DOE	Project	Resources	PDSF	Code Description(s)	Data &	Validate	Other Info	Submit	Show
Overview	Funding	Description	Requested	Q19	Q20	Analytics	Current	Q23-25	Request	Complete
Q1-9	Q10-11	Q12-14	Q15-18			Q21-22	User List			Request

 ERCAP 2016 Request: 89045
 PI: Test PI
 Last updated: 25-AUG-2015 (No. 2015)

## Test project/repositories

Save All Rows You MUST click the "Save" button here or at the bottom in order to save your work before selecting another tab.

WARNING: If you change the Project Role of a User or a Project Manager to Deleted, that change will take effect immediately.

PI and Proxy role change requests should be submitted to NERSC Account Support.

#### testmpp#15 Project User Information and Roles as of 08/28/2015

Name	Email	Phone	Organization	Role	Next Year Status	Signed Policies
ADMIN, Test	support@nersc.gov	510-486-8612	NERSC	≎ User ≎	Keep	EXEMPT
Antypas, Katie	*******@lbl.gov	510-486-9999	NERSC	≎ User ≎	Keep 🗘	ONFILE
Bagwell, Clayton	******@nersc.gov.gov	510-495-9999	NERSC	PI Proxy	Keep	ONFILE
User II, Test	*****@nersc.gov	510-486-9999	NERSC	≎ User ≎	Delete next AY	EXEMPT
Whitney, Cary	******@lbl.gov	510-495-9999	NERSC	≎ User ≎	Keep	ONFILE

I certify that the above user information is correct for all active users in this Project. (Note: You have already certified your user list. You can re-certify if there have been any changes.)

Save All Rows







DOE PDSF Project Project Resources Code Description(s) Data & Validate Submit Show Overview Funding Description Requested Q19 Analytics Current Q23-25 Request Complete Q1-9 Q10-11 Q12-14 Q15-18 Q21-22 Request User List

ERCAP 2016 Request: 89045

PI: Test PI

Last updated: 28-AUG-2015 (N

#### Test project/repositories

Save Other Info Q23-25 You MUST click the "Save" button here or at the bottom in order to save your work before selecting another tab

#### 23. Other HPC Support

List High Performance Computing support for this project from outside NERSC that you currently have or expect in the next year. Also, indicate if you have applied for a DOE INCITE award.

A-2-Q-23 - Other HPC Support: No INCITE award was applied for. (Text field with 4000 character limit.)

24. Additional Information - If your project has special requirements that you would like NERSC to consider, describe them here.

Enter any additional information you would like the review committees to consider in support of this request.

A-2-Q-24 - Additional Information: None at this time. (Text field with 4000 character limit.)

#### 25. Feedback

Use this space to provide feedback on ERCAP, the NERSC application/allocation process.

A-2-Q-25 - Feedback: The ERCAP process is wonderful. And that Allocations Support guy sure is great!

(Text field with 4000 character limit.)







Project DOE
Overview Funding
Q1-9 Q10-11

Project Description Q12-14 Resources Requested Q15-18 PDSF Q19 Code Description(s) Data & Analytic

Data & Analytics Q21-22 Validate
Current
User List

Other Info Q23-25 Submit Request

Last updated: 28-AUG-2015 (N

Show Complete Request

**ERCAP 2016 Request:** 89045

PI: Test PI

Test project/repositories

Save Submit Request You MUST check the finished box and select the "Save" button in order to submit your request.

#### 28. Submit Your Request

Choose Finished if you wish to submit your finished request. Only finished requests will be considered for awards.

✓ Finished: This request is finished and ready for review.

Save Submit Request







Code Description(s) Data & Show Complete Project DOE Project Resources **PDSF** Validate Other Info Submit Overview Funding Description Requested Q19 Q20 Analytics Current Q23-25 Request Q10-11 Q15-18 Q21-22 Q1-9 Q12-14 User List

ERCAP 2016 Request: 89172 PI: Test PI Last updated: 28-AUG-2015 (Not Yet Finished)

Download PDF

### **Test Project**

ERCAP Request #89172 for FY2016  1. Principal Investigator							
Name Phone Email							
PI, Test 510-486-8612 support-notice@nersc.gov							
2. Other Authorized Preparers - Preparer will be designated a PI PROXY	2. Other Authorized Preparers - Preparer will be designated a PI PROXY						
3. Senior Investigators							
4. Project Title	Test Project						
4.1 URL for a relevant web page describing your project							
5. Project Name	TestPrjct						
6. Project Class	Startup						
7. Sponsoring Site	USA: Lawrence Berkeley National Lab - NERSC						
8. Science Category	Computer Science						
9. DOE Office and Program	ASCR - Computer Sciences						







## ERCAP Request #89172 for FY2016

### 1. Principal Investigator

Name	Phone	Email	
PI, Test	510-486-8612	support-notice@nersc.gov	
2. Other A	uthorized Prepa	rers - Preparer will be designated a PI PROXY	
3. Seni	or Investiga	<u>tors</u>	
4. Proje	ect Title		Test Project
4.1 UR	L for a relev	ant web page describing your project	
5. Proje	ect Name		TestPrjct
6. Proje	ect Class		Startup
<u>7. Spo</u>	nsoring Site		USA: Lawrence Berkeley National Lab - NERSC
8. Scie	nce Categoi	r <b>y</b>	Computer Science
9. DOE	Office and I	<u>Program</u>	ASCR - Computer Sciences







# **Helpful URLs**

http://www.nersc.gov/users/accounts/allocations/ deadlines

http://www.nersc.gov/users/accounts/allocations/overview/

http://www.nersc.gov/users/accounts/allocations/ first-allocation

https://nim.nersc.gov/newpi.php

https://nim.nersc.gov/CUA.php

https://nim.nersc.gov







# **Contact Information:**

## **Accounts & Allocations:**

accounts@nersc.gov

allocations@nersc.gov

# **Phone:**

510-486-8612 or

1-800-66-NERSC opt 2



